



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1220W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW36-VPC-035	SVW36-VPC-035	SVW36-VPC-036 DUP	SVW36-VPC-036 DUP	SVW36-VPE-037	SVW36-VPE-037
DATE	12/20/00	12/20/00	12/20/00	12/20/00	12/20/00	12/20/00
SAMPLING TIME	10:02	10:02	10:23	10:23	10:48	10:48
ANALYSIS TIME	10:06	10:06	10:30	10:30	10:54	10:54
SAMPLING DEPTH (feet)	55	55	55	55	92	92
VOLUME WITHDRAWN (cc)	220	220	220	220	370	370
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	10.2	15035	10.2	16394	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	9.0	709	9.0	755	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	5.8	51	5.8	46	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	9.7	8689	9.7	9081	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	11.5	345	11.6	377	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	5.7	131	5.7	134	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.8	164	10.8	160	10.8	161
CHLOROBENZENE	17.7	398	17.8	400	17.7	402
4 BROMOFLUORO BENZENE	21.0	690	21.0	690	20.9	692

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



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VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

SOIL VAPOR DATA IN UG/L-VAPOR

	BLANK	SVW35-VPA-038	SVW35-VPD-039	SVW34-VPA-040	SVW34-VPB-041	SVW34-VPB-042 DUP	SVW34-VPD-043
DATE	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00
SAMPLING TIME	05:40	06:59	07:25	08:17	08:37	09:05	09:30
ANALYSIS TIME	05:42	07:04	07:28	08:19	08:46	09:10	09:33
SAMPLING DEPTH (feet)	--	20	60	20	35	35	65
VOLUME WITHDRAWN (cc)	200	80	240	80	140	140	260
VOLUME INJECTED	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	nd	5.9	5.9	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd
SURROGATES							
1,4 DIFLUORO BENZENE	107%	105%	101%	105%	106%	107%	97%
CHLOROBENZENE	97%	104%	100%	108%	106%	108%	96%
4 BROMOFLUORO BENZENE	99%	106%	103%	109%	108%	112%	100%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



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VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

SOIL VAPOR DATA IN UG/L-VAPOR

	SVW34-VPF-044	SVW34-VPG-045	SVW34-VPH-046	SVW32-VPB-047	SVW32-VPB-048 DUP	SVW32-VPC-049
DATE	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00
SAMPLING TIME	09:55	10:15	10:43	11:07	11:30	11:55
ANALYSIS TIME	09:57	10:21	10:45	11:10	11:34	11:58
SAMPLING DEPTH (feet)	95	108	118	40	40	55
VOLUME WITHDRAWN (cc)	380	435	475	160	160	220
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	26	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	2.4	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	1.4	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	95%	95%	98%	102%	94%	93%
CHLOROBENZENE	97%	97%	100%	100%	95%	95%
4 BROMOFLUORO BENZENE	100%	99%	100%	104%	97%	96%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



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VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	BLANK	BLANK	SVW35-VPA-038	SVW35-VPA-038	SVW35-VPD-039	SVW35-VPD-039	SVW34-VPA-040	SVW34-VPA-040
DATE	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00
SAMPLING TIME	5:40	5:40	6:59	6:59	7:25	7:25	8:17	8:17
ANALYSIS TIME	5:42	5:42	7:04	7:04	7:28	7:28	8:19	8:19
SAMPLING DEPTH (feet)	--	--	20	20	60	60	20	20
VOLUME WITHDRAWN (cc)	200	200	80	80	240	240	80	80
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES								
1,4 DIFLUORO BENZENE	10.7	173	10.8	170	10.7	163	10.8	170
CHLOROBENZENE	17.6	383	17.8	413	17.7	396	17.7	427
4 BROMOFLUORO BENZENE	20.7	658	20.9	707	20.9	682	20.9	722

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



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AREA COUNTS

	SVW34-VPB-041	SVW34-VPB-041	SVW34-VPB-042 DUP	SVW34-VPB-042 DUP	SVW34-VPD-043	SVW34-VPD-043
DATE	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00
SAMPLING TIME	8:37	8:37	9:05	9:05	9:30	9:30
ANALYSIS TIME	8:46	8:46	9:10	9:10	9:33	9:33
SAMPLING DEPTH (feet)	35	35	35	35	65	65
VOLUME WITHDRAWN (cc)	140	140	140	140	260	260
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	10.3	1456	10.2	1445	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.8	171	10.7	173	10.7	157
CHLOROBENZENE	17.7	420	17.7	426	17.7	382
4 BROMOFLUORO BENZENE	20.9	719	20.9	741	21.0	663

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



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AREA COUNTS

	SVW34-VPF-044	SVW34-VPF-044	SVW34-VPG-045	SVW34-VPG-045	SVW34-VPH-046	SVW34-VPH-046
DATE	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00
SAMPLING TIME	9:55	9:55	10:15	10:15	10:43	10:43
ANALYSIS TIME	9:57	9:57	10:21	10:21	10:45	10:45
SAMPLING DEPTH (feet)	95	95	108	108	118	118
VOLUME WITHDRAWN (cc)	380	380	435	435	475	475
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	10.2	6287
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	9.0	1014
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	5.7	186
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.7	154	10.7	154	10.8	159
CHLOROBENZENE	17.7	383	17.7	386	17.8	397
4 BROMOFLUORO BENZENE	21.0	664	21.0	657	21.0	665

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



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AREA COUNTS

	SVW32-VPB-047	SVW32-VPB-047	SVW32-VPB-048 DUP	SVW32-VPB-048 DUP	SVW32-VPC-049	SVW32-VPC-049
DATE	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00	12/21/00
SAMPLING TIME	11:07	11:07	11:30	11:30	11:55	11:55
ANALYSIS TIME	11:10	11:10	11:34	11:34	11:58	11:58
SAMPLING DEPTH (feet)	40	40	40	40	55	55
VOLUME WITHDRAWN (cc)	160	160	160	160	220	220
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.9	166	10.8	152	10.8	150
CHLOROBENZENE	17.8	396	17.8	375	17.8	378
4 BROMOFLUORO BENZENE	21.0	691	21.0	645	21.0	638

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT # 04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1222W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

SOIL VAPOR DATA IN UG/L-VAPOR

	BLANK	SVW32-VPD-050	SVW32-VPE-051	SVW32-VPH-052	SVW32-VPI-053	SVW32-VPI-054 DUP	SVW32-VPJ-055
DATE	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00
SAMPLING TIME	05:53	06:54	07:19	07:44	08:08	08:31	08:55
ANALYSIS TIME	05:54	06:58	07:22	07:45	08:09	08:33	08:58
SAMPLING DEPTH (feet)	--	70	90	155	180	180	195
VOLUME WITHDRAWN (cc)	200	280	360	620	720	720	780
VOLUME INJECTED	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	14	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	17	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd
SURROGATES							
1,4 DIFLUORO BENZENE	105%	96%	87%	93%	94%	97%	102%
CHLOROBENZENE	95%	98%	88%	93%	93%	97%	105%
4 BROMOFLUORO BENZENE	97%	102%	88%	95%	95%	100%	107%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER





GEOFON PROJECT # 04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1222W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

SOIL VAPOR DATA IN UG/L-VAPOR

	SVW39-VPA-056	SVW39-VPC-057	SVW39-VPD-058	SVW39-VPE-059	SVW39-VPE-060 DUP	SVW-VPF-061
DATE	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00
SAMPLING TIME	09:20	09:42	10:05	10:30	10:54	11:17
ANALYSIS TIME	09:21	09:45	10:09	10:32	10:56	11:20
SAMPLING DEPTH (feet)	20	50	70	85	85	100
VOLUME WITHDRAWN (cc)	80	200	280	340	340	400
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	2.4	2.1	5.0
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	1.3	1.3	2.3
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	17	16	21
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	107%	95%	98%	99%	97%	99%
CHLOROBENZENE	109%	97%	98%	102%	94%	98%
4 BROMOFLUORO BENZENE	112%	101%	100%	103%	96%	102%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1222W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	BLANK	BLANK	SVW32-VPD-050	SVW32-VPD-050	SVW32-VPE-051	SVW32-VPE-051	SVW32-VPH-052	SVW32-VPH-052
DATE	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00
SAMPLING TIME	5:53	5:53	6:54	6:54	7:19	7:19	7:44	7:44
ANALYSIS TIME	5:54	5:54	6:58	6:58	7:22	7:22	7:45	7:45
SAMPLING DEPTH (feet)	--	--	70	70	90	90	155	155
VOLUME WITHDRAWN (cc)	200	200	280	280	360	360	620	620
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	10.2	3362
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	5.6	2271
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES								
1,4 DIFLUORO BENZENE	10.7	170	10.8	156	10.8	141	10.7	150
CHLOROBENZENE	17.6	378	17.7	390	17.7	347	17.7	367
4 BROMOFLUORO BENZENE	20.7	641	20.9	679	20.9	587	20.9	631

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1222W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW32-VPI-053	SVW32-VPI-053	SVW32-VPI-054 DUP	SVW32-VPI-054 DUP	SVW32-VPJ-055	SVW32-VPJ-055
DATE	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00
SAMPLING TIME	8:08	8:08	8:31	8:31	8:55	8:55
ANALYSIS TIME	8:09	8:09	8:33	8:33	8:58	8:58
SAMPLING DEPTH (feet)	180	180	180	180	195	195
VOLUME WITHDRAWN (cc)	720	720	720	720	780	780
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.8	152	10.7	157	10.8	165
CHLOROBENZENE	17.7	367	17.7	385	17.8	417
4 BROMOFLUORO BENZENE	20.9	633	20.9	666	21.0	708

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1222W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW39-VPA-056	SVW39-VPA-056	SVW39-VPC-057	SVW39-VPC-057	SVW39-VPD-058	SVW39-VPD-058
DATE	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00
SAMPLING TIME	9:20	9:20	9:42	9:42	10:05	10:05
ANALYSIS TIME	9:21	9:21	9:45	9:45	10:09	10:09
SAMPLING DEPTH (feet)	20	20	50	50	70	70
VOLUME WITHDRAWN (cc)	80	80	200	200	280	280
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.7	174	10.8	154	10.7	159
CHLOROBENZENE	17.7	433	17.7	383	17.7	390
4 BROMOFLUORO BENZENE	20.9	743	20.9	668	20.9	662

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL  
4800 OAK GROVE DRIVE  
PASADENA, CA

HP Labs Project #2K1222W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW39-VPE-059	SVW39-VPE-059	SVW39-VPE-060 DUP	SVW39-VPE-060 DUP	SVW-VPF-061	SVW-VPF-061
DATE	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00	12/22/00
SAMPLING TIME	10:30	10:30	10:54	10:54	11:17	11:17
ANALYSIS TIME	10:32	10:32	10:56	10:56	11:20	11:20
SAMPLING DEPTH (feet)	85	85	85	85	100	100
VOLUME WITHDRAWN (cc)	340	340	340	340	400	400
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	10.2	582	10.2	520	10.2	1228
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	11.5	16	11.6	16	11.5	29
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	5.6	2191	5.7	2101	5.7	2801
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.7	160	10.8	157	10.8	160
CHLOROBENZENE	17.7	402	17.8	373	17.7	390
4 BROMOFLUORO BENZENE	20.9	684	21.0	639	21.0	679

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT # 04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1227W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

SOIL VAPOR DATA IN UG/L-VAPOR

	BLANK	SVW39-VPI-062	SVW38-VPA-063	SVW38-VPB-064	SVW38-VPC-065
DATE	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
SAMPLING TIME	06:05	07:00	07:22	07:45	08:10
ANALYSIS TIME	06:05	07:03	07:26	07:50	08:13
SAMPLING DEPTH (feet)	--	130	25	45	65
VOLUME WITHDRAWN (cc)	200	520	100	180	260
VOLUME INJECTED	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1
CARBON TETRACHLORIDE	nd	2.4	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	5.2	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	2.1	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd
SURROGATES					
1,4 DIFLUORO BENZENE	96%	97%	94%	94%	96%
CHLOROBENZENE	90%	97%	95%	95%	95%
4 BROMOFLUORO BENZENE	91%	100%	98%	97%	98%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT # 04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1227W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

SOIL VAPOR DATA IN UG/L-VAPOR

	SVW38-VPC-066 DUP	SVW38-VPD-067	SVW38-VPF-068	SVW38-VPG-069	SVW38-VPJ-070
DATE	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
SAMPLING TIME	08:35	08:57	09:20	09:45	10:14
ANALYSIS TIME	08:37	09:00	09:24	09:48	10:15
SAMPLING DEPTH (feet)	65	80	110	125	170
VOLUME WITHDRAWN (cc)	260	320	440	500	680
VOLUME INJECTED	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	3.0	2.3	4.6
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	1.2	1.0	2.2
VINYL CHLORIDE	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	1.5	1.4	5.9
BENZENE	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd
SURROGATES					
1,4 DIFLUORO BENZENE	98%	99%	95%	99%	104%
CHLOROBENZENE	98%	99%	96%	101%	103%
4 BROMOFLUORO BENZENE	100%	102%	98%	102%	107%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1227W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	BLANK	BLANK	SVW39-VPI-062	SVW39-VPI-062	SVW38-VPA-063	SVW38-VPA-063	SVW38-VPB-064	SVW38-VPB-064
DATE	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
SAMPLING TIME	6:05	6:05	7:00	7:00	7:22	7:22	7:45	7:45
ANALYSIS TIME	6:05	6:05	7:03	7:03	7:26	7:26	7:50	7:50
SAMPLING DEPTH (feet)	--	--	130	130	25	25	45	45
VOLUME WITHDRAWN (cc)	200	200	520	520	100	100	180	180
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	10.2	594	nd	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	11.5	64	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	5.7	276	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES								
1,4 DIFLUORO BENZENE	10.7	155	10.8	157	10.8	153	10.7	153
CHLOROBENZENE	17.6	356	17.7	386	17.7	376	17.7	376
4 BROMOFLUORO BENZENE	20.7	605	20.9	661	20.9	650	20.9	647

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND.

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER





GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1227W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW38-VPC-065	SVW38-VPC-065	SVW38-VPC-066 DUP	SVW38-VPC-066 DUP	SVW38-VPD-067	SVW38-VPD-067
DATE	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
SAMPLING TIME	8:10	8:10	8:35	8:35	8:57	8:57
ANALYSIS TIME	8:13	8:13	8:37	8:37	9:00	9:00
SAMPLING DEPTH (feet)	65	65	65	65	80	80
VOLUME WITHDRAWN (cc)	260	260	260	260	320	320
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.8	156	10.8	159	10.7	160
CHLOROBENZENE	17.7	376	17.7	387	17.7	393
4 BROMOFLUORO BENZENE	20.9	649	21.0	666	21.0	677

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1227W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW38-VPF-068	SVW38-VPF-068	SVW38-VPG-069	SVW38-VPG-069	SVW38-VPJ-070	SVW38-VPJ-070
DATE	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
SAMPLING TIME	9:20	9:20	9:45	9:45	10:14	10:14
ANALYSIS TIME	9:24	9:24	9:48	9:48	10:15	10:15
SAMPLING DEPTH (feet)	110	110	125	125	170	170
VOLUME WITHDRAWN (cc)	440	440	500	500	680	680
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	10.2	730	10.2	564	10.3	1132
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	11.5	14	11.5	13	11.6	27
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	5.7	190	5.7	180	5.8	776
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.7	154	10.7	161	10.9	169
CHLOROBENZENE	17.8	381	17.7	398	17.8	407
4 BROMOFLUORO BENZENE	21.0	649	21.0	680	21.0	712

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT # 04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1228W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

SOIL VAPOR DATA IN UG/L-VAPOR

	BLANK	SVW37-VPA-071	SVW37-VPA-072 DUP	SVW37-VPB-073	SVW37-VPC-074	SVW37-VPD-075
DATE	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00
SAMPLING TIME	06:04	06:52	07:11	07:36	08:01	08:24
ANALYSIS TIME	06:04	06:52	07:16	07:39	08:03	08:27
SAMPLING DEPTH (feet)	--	25	25	40	60	80
VOLUME WITHDRAWN (cc)	200	100	100	160	240	320
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	1.4	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	98%	96%	93%	98%	94%	99%
CHLOROBENZENE	92%	95%	93%	97%	94%	99%
4 BROMOFLUORO BENZENE	94%	97%	96%	100%	96%	102%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT # 04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1228W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

SOIL VAPOR DATA IN UG/L-VAPOR

	SVW37-VPE-076	SVW37-VPH-077	SVW37-VPH-078 DUP	SVW37-VPI-079	SVW37-VPJ-080
DATE	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00
SAMPLING TIME	08:47	09:10	09:35	10:01	10:25
ANALYSIS TIME	08:50	09:15	09:40	10:04	10:28
SAMPLING DEPTH (feet)	100	155	155	170	180
VOLUME WITHDRAWN (cc)	400	620	620	680	720
VOLUME INJECTED	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1
CARBON TETRACHLORIDE	5.9	3.5	3.2	4.1	3.7
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd
TRICHLORO ETHENE	1.7	nd	nd	1.4	2.2
VINYL CHLORIDE	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	1.1	1.5	1.2	2.0	3.9
BENZENE	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd
SURROGATES					
1,4 DIFLUORO BENZENE	96%	94%	101%	99%	94%
CHLOROBENZENE	96%	95%	99%	99%	95%
4 BROMOFLUORO BENZENE	99%	96%	102%	101%	99%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1228W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	BLANK	BLANK	SVW37-VPA-071	SVW37-VPA-071	SVW37-VPA-072 DUP	SVW37-VPA-072 DUP
DATE	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00
SAMPLING TIME	6:04	6:04	6:52	6:52	7:11	7:11
ANALYSIS TIME	6:04	6:04	6:52	6:52	7:16	7:16
SAMPLING DEPTH (feet)	--	--	25	25	25	25
VOLUME WITHDRAWN (cc)	200	200	100	100	100	100
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.7	159	10.8	156	10.7	151
CHLOROBENZENE	17.6	365	17.7	377	17.7	369
4 BROMOFLUORO BENZENE	20.8	622	20.9	646	21.0	636

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1228W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW37-VPB-073	SVW37-VPB-073	SVW37-VPC-074	SVW37-VPC-074	SVW37-VPD-075	SVW37-VPD-075
DATE	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00
SAMPLING TIME	7:36	7:36	8:01	8:01	8:24	8:24
ANALYSIS TIME	7:39	7:39	8:03	8:03	8:27	8:27
SAMPLING DEPTH (feet)	40	40	60	60	80	80
VOLUME WITHDRAWN (cc)	160	160	240	240	320	320
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	10.2	335	nd	nd	nd	nd
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.8	159	10.8	153	10.8	161
CHLOROBENZENE	17.8	386	17.8	371	17.8	394
4 BROMOFLUORO BENZENE	21.0	661	21.0	638	21.0	680

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1228W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW37-VPE-076	SVW37-VPE-076	SVW37-VPH-077	SVW37-VPH-077	SVW37-VPH-078 DUP	SVW37-VPH-078 DUP
DATE	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00	12/28/00
SAMPLING TIME	8:47	8:47	9:10	9:10	9:35	9:35
ANALYSIS TIME	8:50	8:50	9:15	9:15	9:40	9:40
SAMPLING DEPTH (feet)	100	100	155	155	155	155
VOLUME WITHDRAWN (cc)	400	400	620	620	620	620
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	10.2	1451	10.3	860	10.3	798
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	11.5	21	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	5.7	141	5.7	199	5.7	162
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	10.8	156	10.8	153	10.8	163
CHLOROBENZENE	17.7	381	17.8	375	17.8	392
4 BROMOFLUORO BENZENE	21.0	656	21.0	638	21.0	674

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER



GEOFON PROJECT #04-4304-480

JPL

4800 OAK GROVE DRIVE

PASADENA, CA

HP Labs Project #2K1228W1

GC SHIMADZU 14A FRONT

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR

AREA COUNTS

	SVW37-VPI-079	SVW37-VPI-079	SVW37-VPJ-080	SVW37-VPJ-080
DATE	12/28/00	12/28/00	12/28/00	12/28/00
SAMPLING TIME	10:01	10:01	10:25	10:25
ANALYSIS TIME	10:04	10:04	10:28	10:28
SAMPLING DEPTH (feet)	170	170	180	180
VOLUME WITHDRAWN (cc)	680	680	720	720
VOLUME INJECTED	1	1	1	1
DILUTION FACTOR	1	1	1	1
	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	10.3	1012	10.2	902
CHLOROETHANE/BROMOMETHANE	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd
TRICHLORO ETHENE	11.6	17	11.5	26
VINYL CHLORIDE	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	5.7	257	5.7	516
BENZENE	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd
SURROGATES				
1,4 DIFLUORO BENZENE	10.8	160	10.8	153
CHLOROBENZENE	17.8	392	17.8	377
4 BROMOFLUORO BENZENE	21.0	669	21.0	657

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: ALLEN GLOVER

DATA REVIEWED BY: JAMES E. PICKER